

WHAT IS CLAIMED IS:

1. A resource reservation protocol substitute reply router transferring a verification message transmitted from a transmission host to the reception host for acquiring guarantee
5 of service quality of a transmission route upon transmitting data packet from said transmission host to a reception host, comprising:

judgment means for monitoring a response message from said reception host for said verification message and making
10 judgment whether said reception host is an equipment adapted to said resource reservation protocol or not; and

substitute resource reservation protocol control means for executing a procedure of resource reservation protocol on behalf of said reception host which is judged as not being adapted
15 to resource reservation protocol and making reservation of resource on the route to said transmission host.

2. The resource reservation protocol substitute reply router as set forth in claim 1, wherein said judgment means monitors
20 an internet control message protocol message being said response message from said reception host for a Path message of resource reservation protocol transmitted as said verification message and transmitted to a sender of data packet upon receipt of packet of not adapted protocol, and makes judgment whether said
25 reception host is an equipment adapted to said resource reservation protocol or not from said internet control message protocol message.

3. The resource reservation protocol substitute reply router
as set forth in claim 2, wherein said substitute resource
reservation protocol control means generates a reserve message
5 indicative of service quality in said transmission route for
said Path message on behalf of said reception host, and transmits
said reserve message to said transmission host.

4. The resource reservation protocol substitute reply router
10 as set forth in claim 1, which is arranged adapting to a network
in which a plurality of the reception hosts not supporting said
resource reservation protocol and the reception hosts
supporting said resource reservation protocol are present in
admixing manner.

15

5. The resource reservation protocol substitute reply router
as set forth in claim 1, which is arranged in a network in which
a plurality of the reception hosts not supporting said resource
reservation protocol and the reception hosts supporting said
20 resource reservation protocol are present in admixing manner.

6. The resource reservation protocol substitute reply router
as set forth in claim 1, which is arranged respectively adapting
to a network consisted of the reception host not supporting
25 said resource reservation protocol and a network consisted of
the reception host supporting said resource reservation
protocol.

7. A resource reservation protocol substitute reply system transferring a verification message transmitted from a transmission host to the reception host for acquiring guarantee
5 of service quality of a transmission route upon transmitting data packet from said transmission host to a reception host by a resource reservation protocol substitute reply router arranged between said transmission host and said reception host,

wherein said resource reservation protocol substitute
10 reply router comprising:

judgment means for monitoring a response message from said reception host for said verification message and making judgment whether said reception host is an equipment adapted to said resource reservation protocol or not; and

15 substitute resource reservation protocol control means for executing a procedure of resource reservation protocol on behalf of said reception host which is judged as not being adapted to resource reservation protocol and making reservation of resource on the route to said transmission host.

20

8. The resource reservation protocol substitute reply system as set forth in claim 7, wherein said judgment means monitors an internet control message protocol message being said response
message from said reception host for a Path message of resource
25 reservation protocol transmitted as said verification message and transmitted to a sender of data packet upon receipt of packet of not adapted protocol, and makes judgment whether said

reception host is an equipment adapted to said resource reservation protocol or not from said internet control message protocol message.

5 9. The resource reservation protocol substitute reply system as set forth in claim 8, wherein said substitute resource reservation protocol control means generates a reserve message indicative of service quality in said transmission route for said Path message on behalf of said reception host, and transmits
10 said reserve message to said transmission host.

10. The resource reservation protocol substitute reply system as set forth in claim 7, wherein said resource reservation protocol substitute reply router is arranged adapting to a
15 network in which a plurality of the reception hosts not supporting said resource reservation protocol and the reception hosts supporting said resource reservation protocol are present in admixing manner.

20 11. The resource reservation protocol substitute reply system as set forth in claim 7, wherein said resource reservation protocol substitute reply router is arranged in a network in which a plurality of the reception hosts not supporting said resource reservation protocol and the reception hosts
25 supporting said resource reservation protocol are present in admixing manner.

12. The resource reservation protocol substitute reply system
as set forth in claim 7, wherein said resource reservation
protocol substitute reply router is arranged respectively
adapting to a network consisted of the reception host not
5 supporting said resource reservation protocol and a network
consisted of the reception host supporting said resource
reservation protocol.

13. A resource reservation protocol substitute reply method
10 transferring a verification message transmitted from a
transmission host to the reception host for acquiring guarantee
of service quality of a transmission route upon transmitting
data packet from said transmission host to a reception host by
a resource reservation protocol substitute reply router
15 arranged between said transmission host and said reception host,

wherein said resource reservation protocol substitute
reply router monitoring a response message from said reception
host for said verification message executing a procedure of
resource reservation protocol on behalf of said reception host
20 which is judged as not supporting resource reservation protocol
for making reservation of resource on the route to said
transmission host.

14. The resource reservation protocol substitute reply method
25 as set forth in claim 13, wherein said resource reservation
protocol substitute reply router monitors an internet control
message protocol message being said response message from said

reception host for a Path message of resource reservation
protocol transmitted as said verification message and
transmitted to a sender of data packet upon receipt of packet
of not adapted protocol, and makes judgment whether said
5 reception host is an equipment adapted to said resource
reservation protocol or not from said internet control message
protocol message.

15. The resource reservation protocol substitute reply method
10 as set forth in claim 14, wherein said resource reservation
protocol substitute reply router generates a reserve message
indicative of service quality in said transmission route for
said Path message on behalf of said reception host, and transmits
said reserve message to said transmission host.

15

16. The resource reservation protocol substitute reply method
as set forth in claim 13, wherein said resource reservation
protocol substitute reply router is arranged adapting to a
network in which a plurality of the reception hosts not supporting
20 said resource reservation protocol and the reception hosts
supporting said resource reservation protocol are present in
admixing manner.

17. The resource reservation protocol substitute reply method
25 as set forth in claim 13, wherein said resource reservation
protocol substitute reply router is arranged in a network in
which a plurality of the reception hosts not supporting said

resource reservation protocol and the reception hosts supporting said resource reservation protocol are present in admixing manner.

- 5 18. The resource reservation protocol substitute reply method as set forth in claim 13, wherein said resource reservation protocol substitute reply router is arranged respectively adapting to a network consisted of the reception host not supporting said resource reservation protocol and a network
10 consisted of the reception host supporting said resource reservation protocol.